

What is claimed is:

1. An electrodeless lighting system comprising:

5 a resonator installed at an outlet of a waveguide guiding microwave energy generated from a magnetron and defining a cavity allowing light to pass therethrough while resonating microwave therein;

a bulb positioned in the resonator and enclosing a radiation material for emitting light by the microwave energy; and

10 one or plural microwave concentrating units installed at the inner circumferential surface of the resonator and concentrating microwave energy discharged from the outlet of the waveguide to the bulb.

2. The system of claim 1, wherein the microwave concentrating unit has a pin shape.

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3. The system of claim 1, wherein the microwave concentrating unit is formed inclined upwardly as it approaches the bulb from the inner circumferential surface of the resonator.

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4. The system of claim 1, wherein the microwave concentrating unit is formed near the bulb within a diameter range of the bulb.

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5. The system of claim 1, wherein at least one of the microwave concentrating units installed at the inner circumferential surface of the resonator is positioned at the center of a slot formed at the waveguide.

6. The system of claim 1, wherein the microwave concentrating units are mounted at regular intervals in a circumferential direction at the inner circumferential surface of the resonator symmetrically with the bulb therebetween.

5 7. The system of claim 6, wherein the interval between both ends of the microwave concentrating units which are close to the bulb 50 and symmetrically face each other is greater than $1/4$ of the wavelength of the microwave.